Installation Guide for

Optical Bypass Switch

Models N-IDP-POBPSX-001, N-IDP-POBPLX-002

Doc. IGNET-N-IDP-POBPSX-001/LX-002 Revised 09/05

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Introduction

Net Optics Optical Bypass Switches provide a permanent and trouble-free access port for in-line network security and monitoring devices. The Optical Bypass Switch automatically switches network traffic through added IDP devices or bypasses devices that are about to be removed. Prevent link failure when attached IDP devices lose power by powering the Bypass Switch and in-line device from the same power source.

Uninterrupted traffic

The Optical Bypass Switch supports fail-open monitoring with any fiber IDP device when it shares the same power source as the IDP. While the Optical Bypass Switch is receiving power, it diverts network traffic to attached IDP. In this state, all in-line traffic is routed directly to the IDP connected to the Optical Bypass Switch.

When the Optical Bypass Switch loses power, in-line traffic continues to flow through the network link, but is no longer routed through the device. This allows the network devices to be removed and replaced without network downtime. Once power is restored to the Optical Bypass Switch, network traffic is seamlessly diverted to the IDP, allowing it to resume its critical functions.

Simply Plug It In

Each Bypass Switch includes all the cables and power supplies you need to quickly connect to an IDP. Three quick steps is all it takes to establish a secure connection point for inline devices.

Key Features

Passive, Secure Technology

- Fail-open monitoring with any GigaBit fiber in-line appliance at speeds of 1000 Mbps
- Increased reliability on critical network links
- High-speed optical switching with minimal insertion loss

Key Features (continued)

Ease of Use

- LED indicator shows power status
- Front-mounted connectors support easy installation and operation
- Cables included for plug-and-play deployment
- Silk-screened application diagram illustrates all connections for easy deployment
- Optional 19-inch rack frames holds two Bypass Switches
- Tested and compatible with all major manufacturers' monitoring devices, including protocol analyzers, probes, and intrusion detection/prevention systems

Support

- Net Optics offers free technical support throughout the lifetime of your purchase. Our technical support team is available from 8 am to 5 pm Pacific Time, Monday through Friday at +1 (408) 737-7777 and via email at ts-support@netoptics.com. FAQs are also available on Net Optics website at www.netoptics.com.

Product Diagram

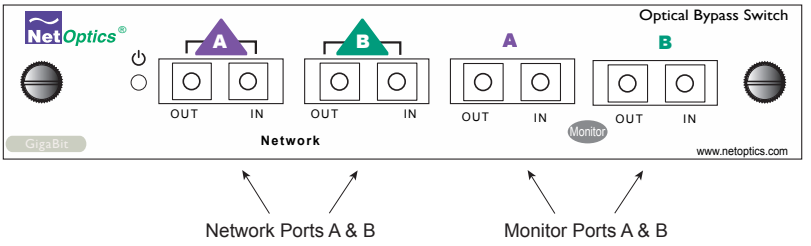

Figure 1. Front View Panel

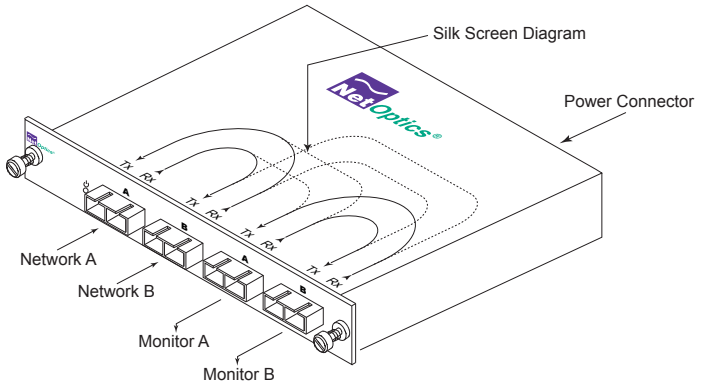

Figure 2.

Power Loss Bypass

The Optical Bypass Switch protects link integrity when the in-line appliance loses power. When the Bypass Switch is receiving power it is in Bypass Disabled (OFF) mode. In Bypass Disabled mode the switch sends network traffic through the connnected device.

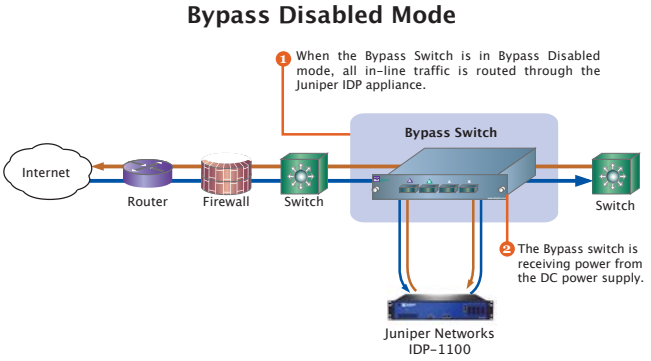
Bypass Disabled Mode
1 When the Bypass Switch is in Bypass Disabled mode, all in-line traffic is routed through the Juniper IDP appliance.
Bypass Switch
Internet
Router
Firewall
Switch
Switch
2 The Bypass switch is receiving power from the DC power supply.
Juniper Networks IDP-1100

Figure 3.

When power to the Bypass switch fails, it enters Bypass Enabled (ON) mode and network traffic bypasses the connected device until power to the switch is restored.

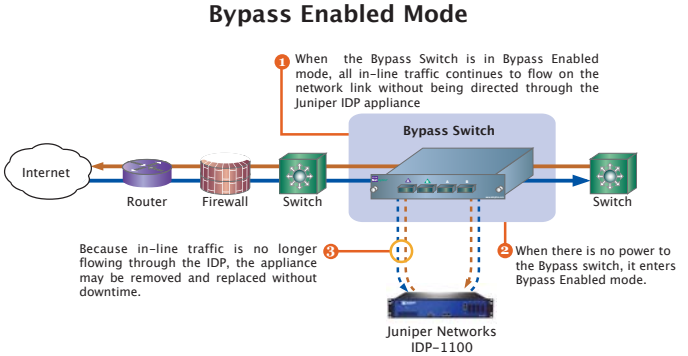
Bypass Enabled Mode
1 When the Bypass Switch is in Bypass Enabled mode, all in-line traffic continues to flow on the network link without being directed through the Juniper IDP appliance
Bypass Switch
Internet
Router
Firewall
Switch
Switch
Because in-line traffic is no longer flowing through the IDP, the appliance may be removed and replaced without downtime.
2 When there is no power to the Bypass switch, it enters Bypass Enabled mode.
Juniper Networks IDP-1100

Figure 4.

Unpacking and Inspection

Unpack the Optical Bypass Switch, power supply, and cables provided. Each Optical Bypass Switch is delivered with the following:

For models N-IDP-POBPSX-001, N-IDP-POBPLX-002:

- 1 DC power supply
- 2 Duplex SC-SC fiber cables
- 2 Duplex SC-LC fiber cables
- 1 Manual

If any component is missing or damaged, contact Net Optics Customer Service immediately.

Connecting the Optical Bypass Switch to the Network

1. Connect Network Port A to the appropriate switch, server or router device using a duplex SC fiber cable. This acts as your DCE interface.
2. Connect Network Port B to the appropriate switch, server or router device using a duplex SC fiber cable. This acts as your DTE interface.
3. Verify that the Bypass Switch Network Ports are cabled in-line between two devices.

Connecting the Optical Bypass Switch to the In-line Security Device

1. Connect Monitoring Port A to the in-line appliance Port A using a duplex SC-to-LC fiber cable. This will act as your DCE Interface.
2. Connect Monitoring Port B to the in-line appliance Port B using a duplex SC-to-LC fiber cable. This will act as your DTE interface.
3. Verify that the Switch Monitoring Ports are cabled in-line between two devices.
4. Connect the power supply to the switch. Make sure you connect the switches' power supply to the same power sources that in-line appliance is using.

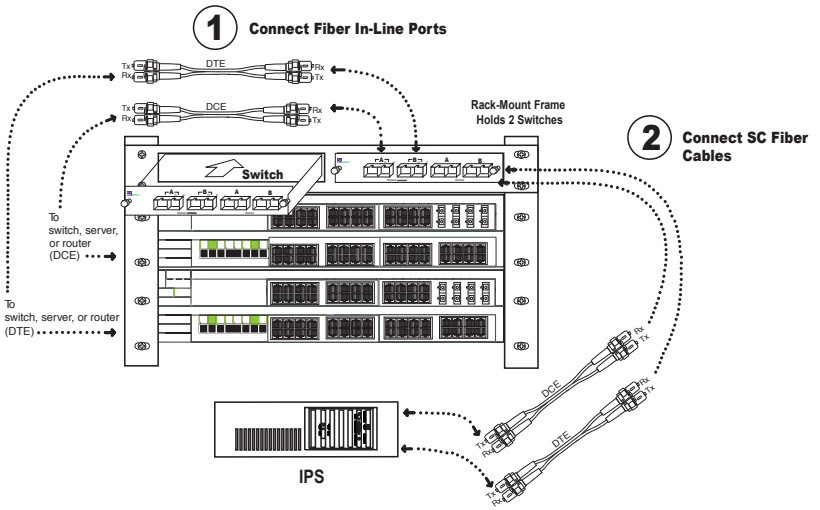

Figure 5.

Specifications

Splitter Specifications:

Fiber Type: Multimode: Corning 62.5/125μm, wavelength, 850nm
Insertion Loss: Network Port: ≤ 1.25 dB
Monitor Port: ≤ 1.25 dB

Fiber Type: Singlemode: Corning 8.5/125μm, wavelength, 1300nm
Insertion Loss: Network Port: ≤ 1.25 dB
Monitor Port: ≤ 1.25 dB

Note: There is no insertion loss when the switch is not receiving power and is in Bypass Disabled mode.

Operating Specifications:
Operating Temperature: 5˚C to 40˚C
Storage Temperature: -10˚C to 70˚C
Relative Humidity: 10% min, 95% max, non-condensing

Mechanical Specifications:
Power Supply: Input Power: 100-250V, 0.5A, 47-63Hz
Output Power: 5V, 2.4A
Dimensions: 1.125” high x 6.0” deep x 6.5” wide

Connectors:
(2) Duplex SC connectors (monitoring ports)
(2) Duplex SC connectors (network ports)

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Net Optics, Inc. warrants this Optical Bypass Switch to be in good working order for a period of ONE YEAR from the date of purchase from Net Optics or an authorized Net Optics reseller.

Should the unit fail anytime during the said ONE YEAR period, Net Optics will, at its discretion, repair or replace the product. This warranty is limited to defects in workmanship and materials and does not cover damage from accident, disaster, misuse, abuse or unauthorized modifications.

If you have a problem and require service, please call the number listed at the end of this section and speak with our technical service personnel. They may provide you with an RMA number, which must accompany any returned product. Return the product in its original shipping container (or equivalent) insured and with proof of purchase.

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